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Professional Associations in England

BETWEEN 10 and 15 years ago, extensive studies were made by experienced investigators, Sidney and Beatrice Webb, covering the development and status of professional associations in England. Special interest attaches to this because it was completed and published in the midst of the World War. What follows is abstracted or quoted from "The New Statesman", a forward-looking British weekly. The material appeared in two parts, as special supplements to the issues of April 21 and 28, 1917.

In reviewing the historical development of vocational organization, it is shown that gradually the membership had increased so that there were (1917) about 5 000 000 members (including trade unions). About a quarter of a million could be classed in associations of brain-working professions. The effect of this small number, however, should not be under-emphasized, because "by the very nature of the case, it is the organized part of each industry or each profession which secures economic and political influence and which to a large extent imposes its policy on the whole vocation".

In turn, each of several classes of such brain-workers are cataloged and analyzed. The general classifications thus covered include lawyers, medical men, teachers, those in literature and the fine arts, office technicians, and "manipulators of men". Of especial interest, of course, is the study and deductions regarding engineers.

An extensive review of the history of the Institution of Civil Engineers shows its relation as a sort of parent organization to the many other now powerful organizations.

The Societies have other things in common. Each "attempted to embark itself by examinations and the granting of diplomas. These examinations and diplomas are of unequal value, ranging from the Membership of the Institution of Civil Engineers or of the Naval Architects, down to the certificates granted by

(Continued on page 4)

Jobs

THE Committee on Student Chapters suggests the timeliness of the comment that members of the Student Chapters are now completing their school work and—in short—want jobs.

In the electrical industry particularly, there is a well formulated program by which the larger corporations send representatives to the engineering schools to interview the prospective graduates and to offer them jobs. The student trained in that field thus finds the routes into the professional world definitely marked. This is not true of the civil engineer except perhaps in connection with some railroad system.

Without commenting on other phases of the situation, it may be said perhaps that the civil engineering graduate too often flounders around to an unwholesome extent in finding the job for which he is best adapted. It is a matter of his initiative and of chance; and the chance element can be reduced materially if civil engineering employers will remember to place their needs before engineering school authorities in their vicinities.

It is the plea of the Student Chapter Committee that members give this consideration.

Milwaukee Meeting
July 10, 11, 12

MILWAUKEE members are making great preparations for the Society's Fifty-ninth Convention, which is to be held in that city on July 10, 11, and 12 next.

The main technical question at the meeting contemplates discussion of the Development of the Inland Waterways and the Relation of Such Development to the Rail Transportation System. Always, also, at the Convention the President presents his Annual Address.

The Construction Division plans a session on Waterway Construction Equipment and Methods. The City Planning Division has a program in process developing the subject of Regional Planning on the Basis of Counties and a further development of its program of City Capitol Planning. The Highway Division will carry on its discussion of the Equitable Distribution of Motor Vehicle Fees and Gasoline Taxes. The Waterways Division is likely to take up the engineering features of the Welland Canal and the Illinois Waterway. Other Division plans are not yet definite enough to announce.

The social features will be by no means overlooked. In fact, they are to be featured, as Milwaukee feels it has much to show its guests, and the local members have taken great interest in this phase of the meeting. Their plans for the inspection of local engineering projects are particularly elaborate and there are many unusual things to see in Milwaukee.

From East, West, or South, the Milwaukee Convention provides an instructive and interesting incident in a summer visit to the great National Parks. Or should it not be said that a visit to the parks would be a pleasant incident to attendance at the Milwaukee Convention?

Recognized Digests

TO those who know "Engineering Abstracts" best, these publications of the Institution of Civil Engineers of Great Britain have a wonderful reputation. The fact that many members are not equally familiar and enthusiastic about them is perhaps because of lack of familiarity. In general, they have been available only to members of the Institution—a relatively small group in the United States—and, of course, in certain public libraries.

Those who are familiar, however, are most pleased with the arrangement whereby all members of the Society may likewise profit. Full details of the plan will be found in Part I, under "Items of Interest".

Co-operation with the Institution was one most pleasing feature of the plan adopted. Especially does this apply to the subscription for a fraction of the current year. Some members will doubtless wish to avail themselves of the chance to buy the entire year's issue. Others will find a half-year's subscription a sort of an introductory offer. This possibility will not be available in succeeding years, when subscriptions will be based on the full year.

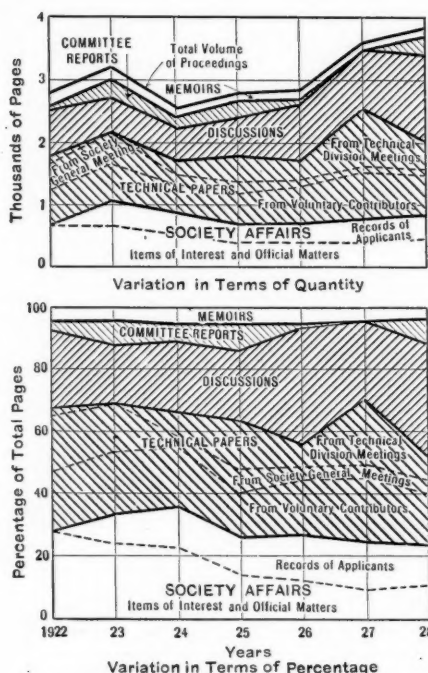
It seems reasonably certain that those who try out the plan at these nominal rates for a half year will wish to continue. This publication has not reached its present eminence by any mere chance. It is solid, it is reliable, it covers wide distribution, it is well prepared. Members are urged to use the subscription blank supplied, not forgetting to remit the payment direct to the Institution.

Technical Service

AN analysis of the character of Proceedings during the past nine years has indicated several points suggestive of comment.

In 1922 the records of applicants were not contained in the Proceedings but were issued separately. The proportion of the annual volume occupied by them since that year has remained remarkably constant although the number of pages has increased. This is also true of Memoirs.

The same is not true of the department called Society Affairs which contains items of interest and details of Society administration. In 1922, these occupied 27% of the volume;



These graphs show the character of the contents of Proceedings and the total quantity of material. Indexes, Progress Reports and blank pages are not included

in 1928, they occupied only 12%.

Papers submitted voluntarily have claimed a somewhat less proportion of the volume lately, decreasing from 19% in 1922 to 18% in 1928, but increasing none-the-less from 518 pages to 676 pages. Papers solicited have decreased from 20% in 1922 to 13% in 1928, and yet these have remained almost constant in the number of pages.

Discussions occupy about 27% of the volume. The ratio of discussions to papers has changed definitely. In 1922, it was 65% and, in 1928, it was 113%; but in general, of late years, it may be counted on to run about 80 per cent. The large amount of discussions in 1928 is due to the larger number of papers presented in 1927. A glance at the accompanying diagram will show this. It is also noticeable that the increase is attributable largely to papers which came into existence through the medium of the Technical Divisions in that year. Committee reports occupy 5 or 6% of the usual volume.

As a disseminator of technical information, therefore, Proceedings has become bigger as the years have gone on. In 1922, of a volume of 3 801 pages, 66%, or 1 842 pages, were devoted to technical matter. In 1928, the volume consisted of 3 801 pages, of which 74%, or 2 825 pages were of this character. The increase

in proportion of the volume is slight, but the increase in pages is about half as much again.

An Engineer's Prospects in 1854

GEORGE R. HARLOW, Member, submits the following letter, dated January 10, 1854, and addressed by his father to his maternal uncle. At the time the letter was written, Mr. Harlow, Senior, worked for a railroad which had Alton, Illinois, as its western terminus. He was Chief Engineer and it was from that eminence that he analyzed the status of the civil engineer of his day. At the time he was 39, and the younger man (his brother-in-law) 24, years of age.

The letter is in a fine Spencerian hand, the paper tinted blue and faintly ruled, the writing following these faint rulings meticulously. Addressing himself to an inquiry regarding the prospects of his profession, Mr. Harlow wrote (with some elisions for brevity's sake):

"I will mention some of the advantages and disadvantages that occur to me as belonging to the business of an engineer. Sometimes they have a-plenty of business and get well paid for it. And some of the work is not very hard, and it is quite pleasant. There is a very pleasant variety in it. But sometimes there is very little to do, and each job is very short and a great deal of time spent in going to do a job, and the person for whom it is done thinks the price is very high for one or two hours' work, which is all he sees, and does not seem to think of the half day or day that is consumed before another hour or two's work can be done for anybody else. "And again an engineer's time is much of it spent away from home, so that his expenses are great, and then his instruments are rather costly. I think a good deal of the evil of being separated from his family. His habits and manner of living are apt to be costly. If he makes bad mistakes, his employers will not have confidence in him. This last to be sure applies to all kinds of business, but it is particularly important where great interests are entrusted. For instance, suppose in the case of the Hoosack Tunnel that the lines run in from the opposite ends should not meet, and after 5 or 10 years had been spent and \$2,000,000, how do you suppose the engineer would feel that had charge of it?"

"I think it is not so easy and quiet a life as that of a farmer. It seems to me it is harder to lay up anything where a man has no home. If a man has a small farm and works hard for his living, his habits are apt to be more economical than those of a person to whom money comes easy, and it seems to me he is in reality more independent, and if he earns more than the immediate supply of his wants, he

has a productive. all make as sick. "Perh things. the busi to have mind to when I pay qui "The directly can hear was in me in v low."

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has a place to put it, where it will be productive. I think it well that we should all make provision for such a contingency as sickness or old age.

"Perhaps I have said enough of the dark things. Now I may as well say that I like the business very well. I should be glad to have it near home. I have it in my mind to try to get business nearer home when I get through here even if it does not pay quite so large.

"The odd fellows are having a supper directly under the room where I am, and I can hear their speeches just as well as if I was in the room with them. This hinders me in writing.—Your brother, N. R. Harlow."

The man who "liked the business very well" certainly influenced others to enter the same line, as two sons are members of the Society, and four grandsons of his are engineers. By coincidence a son-in-law of a son also is a member of the Society.

Two New Sections

RECENTLY two new Local Sections have been formed—making the total number forty-eight.

They are the Florida Section, comprising all of the State of Florida, other than Palm Beach, Broward, Dade, and Monroe Counties, which are included in the Miami Section; and the Mid-South Section, embracing Arkansas, Tennessee, and Kentucky west of the Tennessee River, Northern Mississippi, including Jackson and Vicksburg, Southeastern Missouri, including Cape Girardeau and Poplar Bluff, and Southern Illinois, including Cairo and Mound City.

The official inauguration ceremonies of the Florida Section were held on February 18 at Gainesville, the seat of the University of Florida. The evening opened with a banquet at the Hotel Thomas, at which were present members of the University of Florida Student Chapter, ladies, and guests. Several of the students entertained the group with instrumental and vocal music. The meeting then adjourned to one of the University lecture rooms for business and discussion of one of the Society's papers. About 65 were present.

The Mid-South Section chose April 29 and 30 for its organization meeting. That meeting can be more definitely described at a later date, but the announced plans call for the presence of six officers of the Society at a two-day session. A technical program, business session, smoker, and inspection trips are planned. The meeting place is Memphis, Tennessee.

Honorary Members

ON the same day, March 26 last, were held the funeral ceremonies of two of the Society's Honorary Members: Samuel Rea and Ferdinand Foch, the one in Bryn Mawr, Pa., and the other in Paris.

Mr. Rea was elected Honorary Member on June 6, 1921. He entered the Engineering Department of the Pennsylvania Railroad as rodman and chainman when sixteen years of age and except for very short intervals remained with that company during his entire life. He was elected President of the Pennsylvania Railroad in 1913, which position he held until his retirement in 1925. It is said that the success of the Pennsylvania Station and tunnels at New York was due largely to Mr. Rea.

Marshal Foch was elected Honorary Member on December 6, 1921, the same year as Mr. Rea. On December 13, upon the occasion of presentation personally by the Presidents of the Founder Societies to Marshal Foch of an engrossed certificate of honorary membership in all the Societies jointly, it was written:

"Marshal Foch, military engineer, the World's greatest soldier, has been made an honorary member of the four national American Societies of Civil, Mining and Metallurgical, Mechanical, and Electrical Engineers. Unanimously the governing bodies of these great societies aggregating 45,000 members conferred this signal honor, the only one of its kind, in expression of the appreciation of American engineers for the unmatched services of this master of engineering principles, the unique Commander of Commanders of the Defenders of Civilization."

Why Not Join?

THE Constitution provides five objects for a Local Section: One technical, one administrative, one a civic duty, and two social in the broad sense of that word.

"To co-operate with other Local Sections and local engineering societies in matters of common interest, and to bring about closer personal acquaintance and a spirit of co-operation between engineers in a community" is the expressed ideal of the social objectives.

All five objectives are followed by practically each of the Society's 48 Local Sections, in greater or less degree; but those most interested in their affairs volunteer the opinion that the greatest value to the member of a Local Section is derived from

the thought expressed by the words "to bring about closer personal acquaintance". At least, it is an axiom that with a close personal acquaintance existing among members of the Society all things are possible.

The enrolled membership in Local Sections on March 1 was 5820, about 43% of the total membership on that date. Members to the number of 1018 do not live in the United States, but the question has been asked: Why do not those resident where Local Sections are organized join in if for no other reason than to secure a closer personal acquaintance with their fellow members?

The additional dues are usually only one or two dollars, which, with the Society's contribution for each enrolled member, goes to support the local meetings, etc. It seems that value is received for the expenditure and that something other than expense, perhaps inertia, may account for the neglect of many to join.

It would hold up the hands of the selected officers of the Local Sections if more did join; and quite certainly other rewards would follow.

May "Proceedings"

IT so happens that the four papers appearing in the May Proceedings, have their origin in engineering enterprises of the Far West. The first two deal with investigations made in Southern California, and the remaining two, while considering important matters of reclamation affecting the entire West, actually were delivered at the San Diego Meeting last Fall.

The paper entitled "Water Supply from Rainfall on Valley Floors", by A. L. Sonderegger, Member, heads the list. To determine the extent of penetration, extensive observations were made on test wells. Examples are cited to show the method of predicting the penetration from known run-off records.

By means of the principles evolved in the paper "Predetermining the Extent of a Sewage Field in Sea Water", A. M. Rawn and H. K. Palmer, Members, are able to predict, by an examination of the site for a proposed sewer outfall, the extent and time of dissipating the sewage. The method involves the study of the behavior of a discharge of artificially colored fresh water.

When the Committee of the Irri-

gation Division delivered its Report on a National Reclamation Policy, at San Diego, the Chairman, J. B. Lippincott, Member, introduced the question. His remarks form the basis of his present paper, "A National Reclamation Policy; Explanatory Statement Regarding Report of the Committee of the Irrigation Division". He analyzes various factors which the Committee considered but could not elaborate in its report.

At the same time, Elwood Mead, Member, representing the Government engineer in irrigation work, was asked to comment on the report. His remarks are here given under the heading "A National Reclamation Policy: Economic Aspects of Federal Reclamation". Dr. Mead states the essentials of the other side of the question, noting the accomplishments in the face of difficulties.

While the discussions are possibly fewer than usual, covering 26 comments on 21 topics, the memoirs are correspondingly more numerous. An attempt has been made to include all of those available, and thus round out the Spring printing with few items held over for the next Proceedings on August 1.

American Engineering Council—Joined

THE Society has joined American Engineering Council and has named its fourteen representatives as follows:

Term Expires January 1, 1930:

Baxter L. Brown, St. Louis
Louis L. Calvert, Philadelphia
Arthur J. Dyer, Nashville
Frank M. Gunby, Boston
John B. Hawley, Fort Worth
Charles H. Paul, Dayton
George T. Seabury, New York

Term Expires January 1, 1931:

Herbert S. Crocker, Denver
C. E. Grunsky, San Francisco
Alonzo J. Hammond, Chicago
John C. Hoyt, Washington
Anson Marston, Ames
Francis Lee Stuart, New York
Frank M. Williams, Albany

Under authority of the Board of Direction the representatives were appointed by the President of the Society, suggestions having been made by the members of the Board, each with respect to the Zone in which he resides. The President and the Secretary are to be representatives *ex officio*, the other twelve comprising three from each of the four Zones into which the Society is divided.

Professional Associations in England

(Continued from page 1)

the Association of Engineers-in-Charge or the Institute of Gas Engineers."

By and large, the origin of these Societies may be traced back to three separate impulses or motives. First is listed "the Creative Impulse—the intention and the wish to advance the knowledge and perfect the art of the vocation. . . . The second motive is that of fellowship among one's own kind, whether merely comradeship and social intercourse, or a willingness to befriend one's fellows; passing insensibly into an appreciation of the advantages of mutual assistance, and from that to mutual protection. . . . Finally, we have what has been aptly termed the Possessive Impulse, the desire to secure for the members of the group all the remuneration and status which the community can be induced to accord."

"It would be a mistake to assume that the Possessive Impulse is always harmful. Without some protective development there is always a danger of any group being so crushed down as to be incapable of rendering its full service to the community. . . . Without adequate security of a sufficient livelihood and a large measure of personal freedom in the execution of their tasks, neither the exercise of the Creative Impulse nor the maintenance of professional honour becomes possible."

Even the State in its Government function has had a hand in developing these Societies, so that "the great Institutions of Engineers, like the leading professional organizations of accountants and actuaries, owe a large part of their strength to their increasingly frequent recognition by the State for public purposes."

Thus, gradually the organizations have acquired "authoritative direction of the conduct of the practitioners", covering qualifications for entry, character of the training, methods of remuneration, conditions of employment, and rules of behavior.

Among the other interests of the organization has been that of safeguarding entry into the profession. Thus, they "jealously guard the initials denoting membership, which can now be gained only by passing the examinations and complying with the conditions prescribed by these as-

sociations." This exclusiveness "has seldom taken the crude form, in the case of the brain-working professions, of a direct limitation of numbers. . . . But it is common to find an absolute exclusion of whole classes of persons. Thus, all brain-working professions have struggled (or are still struggling) to exclude women, and have only abandoned the masculine monopoly when public opinion, Parliament, or the Courts of Justice have insisted on freedom."

"Professional Associations of brain-workers have had comparatively little opportunity of influencing the amount of the remuneration of their members. The fact that in most professions the practitioner works for a succession of isolated clients, from each of whom he receives a separate fee, precludes any form of Collective Bargaining."

In England, as in America, one of the important aspects of professional societies seems to be the development "of specialized rules of conduct to be enforced by the organization on its membership. These rules can be classified under two heads, those relating to the conduct of professional men to each other, and those relating to the conduct towards the community of all the members of the profession."

That the limitation of certain privileges to members of given professional associations sometimes is an advantage, is admitted. In fact, "the great Institutes of Engineers have latterly come to exercise great influence in favour of a monopoly for their own members in the appointments to important engineering posts, whilst during the war the recognition by the Government of these great Institutes in the selection of men for commissions in the Army and places in munition works is virtually handing over to the members, associates, or students of these Institutes the monopoly of certain grades of engineering."

It is interesting to note that "in so far as Professional Association is based on the voluntary principle, the unit of organisation seems strictly limited by the condition that all the persons to be included must have essentially identical interests on the main questions of policy."

These observations, and many not quoted, cannot but be helpful to those interested in advancing the profession as that is, and may be, aided by the vocational organization.